

CENSUS OF FATAL OCCUPATIONAL INJURIES
New Jersey - 1997

NEW JERSEY DEPARTMENT OF HEALTH AND SENIOR SERVICES

**IN COOPERATION WITH THE
U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS**

DECEMBER, 1998

**Census of Fatal Occupational Injuries Project
Occupational Health Surveillance Program**

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FOREWORD

The Census of Fatal Occupational Injuries (CFOI) Project is a cooperative effort between the federal government and state governments. It was initiated in 1990 by the U.S. Department of Labor, Bureau of Labor Statistics (BLS). Data is collected from 50 states and U.S. territories. The impetus for the CFOI project was the fact that there was no true count of occupational injury fatalities. Estimates of the number of fatal injuries varied widely due to different reporting sources and definitions. CFOI's objective is to collect detailed information on every occupational injury fatality in a timely manner so that an accurate count can be made.

The BLS provides funding to the states that is matched by the states. The states actively collect, verify, code, computerize, and transmit to BLS detailed information on the work-related fatal injuries. Coding is done according to the BLS protocol. Identifying information such as workers' names, employers' names, and company names are not sent to BLS. In New Jersey, the CFOI project is conducted by the Occupational Health Surveillance Program within the New Jersey Department of Health and Senior Services.

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HIGHLIGHTS

- ▶ total number of fatal injuries: 101
- ▶ 2.5 fatalities per 100,000 workers
- ▶ 97 were men and 4 were women
- ▶ 30% were immigrant workers
- ▶ 84% were residents of New Jersey
- ▶ age at death ranged from 17 to 78, average age was 42, 63% were younger than 45 years of age
- ▶ 87 worked for wages or salary, 11 were self-employed, two were in the Armed Forces, and one was employed in a family business
- ▶ 86 worked in the private sector, 15 were public employees
- ▶ the highest number of fatalities occurred in the industries of construction (27), transportation and public utilities (24), and services (13)
- ▶ the highest number of fatalities occurred in the occupations of handlers, equipment cleaners, helpers, and laborers (24) and transportation and material moving (20)
- ▶ the most common external cause of injuries (E-codes) included motor vehicle traffic accidents (18), falls (16), and homicides (15)
- ▶ a total of 2,435 potential years of work life (the number of years before age 65 of the victims) was lost, an average of 26 years per fatality
- ▶ the size of the establishment for which the victims worked (including self-employed) was 1 - 10 employees for 43%, over 100 employees for 22%, and 20 - 49 employees for 13%

DATA SPECIFICATIONS

The following individuals are included:

- Private and public sector employees
- Self-employed persons
- Certain volunteers (e.g., firefighters, law enforcement officers, emergency medical service workers)
- Persons traveling on the job, but not commuting to or from the job
- Institutionalized persons who are fatally injured while employed off the premises of their institutions.

All work-related fatal injuries that occurred in New Jersey in 1997 were counted in this report, including homicides, suicides, and motor vehicle accidents. Only deaths due to an injury are included; deaths due to an occupational illness are not included. ***A death is considered work-related if the event leading to the fatal injury occurred while working, either on or off the employer's premises.*** The fatal occupational injuries are classified according to the Bureau of Labor Statistics' protocol. The coding systems used are listed in footnotes to the tables in this report.

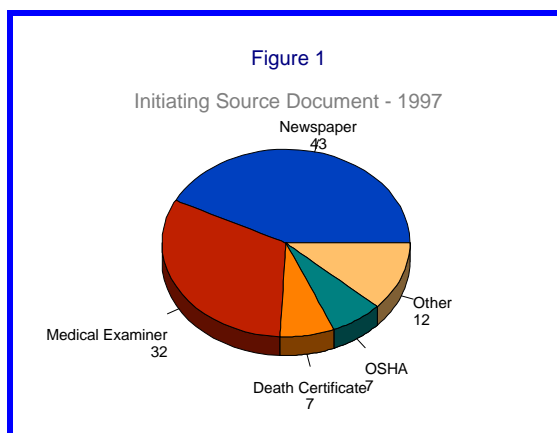
An occupational injury is defined as a wound or other condition caused by external forces or caused by a specific event or incident or series of events within a single

work day. Work-related injuries listed as an underlying or contributory cause on the death certificate or medical examiner's report are included. An example is a death that was caused by pneumonia after the worker was hospitalized with injuries that occurred at work.

SOURCES OF INFORMATION

The work-relationship of each fatality is confirmed by at least two sources. Sources and documents used are newspaper articles, medical examiner reports, police reports, NJ Fatality Assessment and Control Evaluation (FACE) reports, and other state and federal agency reports. A followback questionnaire is sent to employers or other knowledgeable persons, when needed, to gather additional information.

Figure 1 shows that newspapers were the major source of initial information about the fatal injuries, followed by county and state medical examiners.



DEMOGRAPHIC CHARACTERISTICS

Numbers

Table 1 shows the employer, employment status, gender, race and age of the 101 victims of fatal work-related injuries in New Jersey in 1997. Eleven percent of the victims were self-employed and 15% were government employees. Most of the victims were male (96%) and their ages ranged from 17 to 78 with 63% younger than 45 years of age.

TABLE 1
Fatal Occupational Injuries by Selected Demographic Characteristics, New Jersey, 1997

| CHARACTERISTIC | NUMBER | PERCENT |
|------------------------------------|------------|------------|
| TOTAL | 101 | 100 |
| Employer | | |
| <i>Private</i> | 86 | 85 |
| <i>Local and County Government</i> | 9 | 9 |
| <i>Federal Government</i> | 3 | 3 |
| <i>State Government</i> | 3 | 3 |
| Employment Status | | |
| <i>Wage and Salary Workers</i> | 87 | 86 |
| <i>Self-Employed</i> | 11 | 11 |
| Gender | | |
| <i>Men</i> | 97 | 96 |
| <i>Women</i> | 4 | 4 |
| Race | | |
| <i>White</i> | 78 | 77 |
| <i>Black</i> | 16 | 16 |
| <i>Asian or Pacific Islander</i> | 3 | 3 |
| <i>Other or unknown</i> | 4 | 4 |
| Age | | |
| <i>19 years and under</i> | 2 | 2 |
| <i>20 to 24 years</i> | 9 | 9 |
| <i>25 to 34 years</i> | 20 | 20 |
| <i>35 to 44 years</i> | 33 | 33 |
| <i>45 to 54 years</i> | 19 | 18 |
| <i>55 to 64 years</i> | 11 | 11 |
| <i>65 years and older</i> | 7 | 7 |

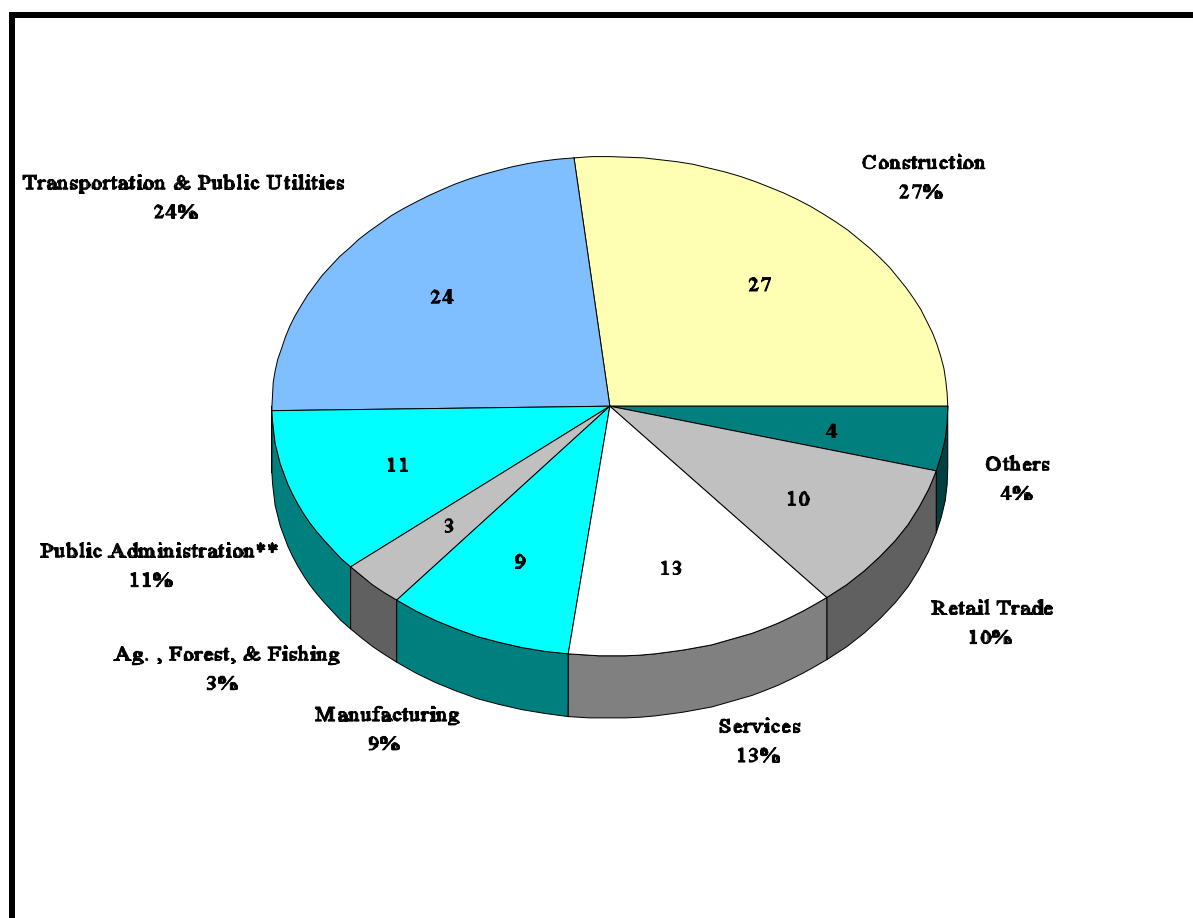
Not all categories are shown.

Note: Percentages may not add to 100 due to rounding.

INDUSTRY

The highest number of fatal injuries occurred in construction (27) and transportation and public utilities (24).

FIGURE 2
Fatal Occupational Injuries by Industry*
New Jersey, 1997 (N=101)



* Based on the Standard Industrial Classification (SIC) Manual, 1987.

** Does not include workers employed in government with a SIC in other industries - 3 in services and 1 in construction.

Note: Percentages may not add to 100 due to rounding.

OCCUPATION

TABLE 2
Fatal Occupational Injuries by Occupation
New Jersey, 1997 (N=101)

| OCCUPATION | NUMBER | PERCENT |
|---|------------|------------|
| Handlers, Equipment Cleaners, Helpers, and Laborers | 24 | 24 |
| <i>Construction laborers</i> | <i>13</i> | <i>13</i> |
| <i>Laborers except construction</i> | <i>6</i> | <i>6</i> |
| Transportation and Material Moving | 20 | 20 |
| <i>Truck drivers</i> | <i>10</i> | <i>10</i> |
| <i>Taxicab drivers</i> | <i>4</i> | <i>4</i> |
| Construction Trades | 11 | 11 |
| Mechanics and Repairers | 10 | 10 |
| Protective Service Occupations | 7 | 7 |
| <i>Police</i> | <i>4</i> | <i>4</i> |
| Executive, Administrative, and Managerial | 6 | 6 |
| Sales Occupations | 5 | 5 |
| Farming, Forestry, Fishing | 4 | 4 |
| Machine Operators and Tenders | 3 | 3 |
| Professional Specialty | 2 | 2 |
| Technicians and Related Support | 2 | 2 |
| Other Services | 2 | 3 |
| Others | 5 | 5 |
| All Occupations | 101 | 100 |
| <p>*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.</p> <p>** Subcategories may not total major categories. Not all subcategories are shown.</p> <p>Note: Percentages may not add to 100 due to rounding.</p> | | |

EXTERNAL CAUSE OF INJURY

TABLE 3
Fatal Occupational Injuries by Cause
New Jersey, 1997 (N=101)

| CAUSE* | NUMBER | PERCENT |
|--|------------|------------|
| Motor Vehicle Traffic Accidents (MVTA) | 18 | 18 |
| <i>Involving collision with pedestrian</i> | 7 | 7 |
| <i>Involving collision with other than vehicle</i> | 5 | 5 |
| <i>Involving collision with train</i> | 2 | 2 |
| Motor Vehicle Nontraffic Accidents | 5 | 5 |
| <i>Involving collision with pedestrian</i> | 3 | 3 |
| Air Transport Accidents | 2 | 2 |
| Water Transport Accidents | 2 | 2 |
| Accidental falls | 16 | 16 |
| <i>Falls from ladders</i> | 6 | 6 |
| Accidents Caused by Machinery | 8 | 8 |
| <i>Lifting machines and appliances</i> | 5 | 5 |
| Homicides | 15 | 15 |
| <i>Assault by firearms</i> | 11 | 11 |
| Accidents Caused by Electric Current | 9 | 9 |
| Struck Accidentally by Falling Objects | 7 | 7 |
| Suicides | 3 | 3 |
| Accidental self-administered drug overdose | 3 | 3 |
| Other | 13 | 13 |
| All Causes | 101 | 100 |

*Based on the International Classification of Disease, 9th Edition, External Injury Codes (ICD-9 E-Codes).

** Subcategories may not total major categories. Not all subcategories are shown.

Note: Percentages may not add to 100 due to rounding.

EVENT OR EXPOSURE

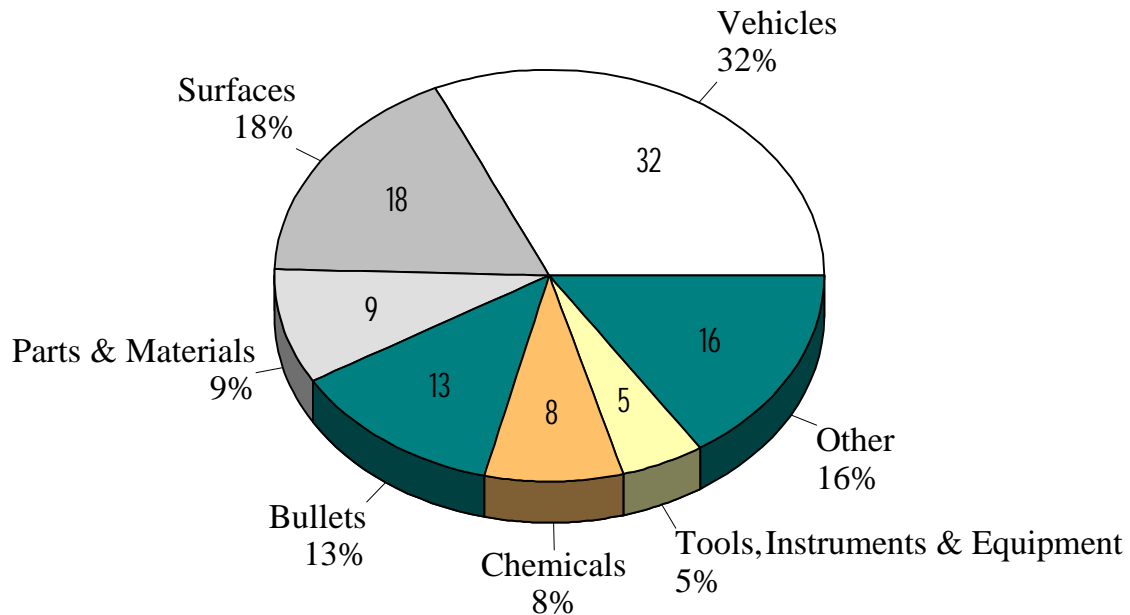
TABLE 4
Fatal Occupational Injuries By Event or Exposure
New Jersey, 1997 (N=101)

| EVENT OR EXPOSURE* | NUMBER* | PERCENT |
|--|----------------|----------------|
| Transportation Incidents | 31 | 31 |
| Highway accident | 9 | 9 |
| Vehicle struck stationary object or equipment on side of road | 5 | 5 |
| Nonhighway accident except rail, air, water | 5 | 5 |
| Worker struck by vehicle, mobile equipment | 11 | 11 |
| in roadway | 6 | 6 |
| in parking lot or non-roadway area | 4 | 4 |
| Exposure to Harmful Substances or Environments | 20 | 20 |
| Contact with electric current | 9 | 9 |
| Exposure to caustic, noxious, or allergenic substances | 6 | 6 |
| Drowning | 3 | 3 |
| Self-administered drug overdose | 3 | 3 |
| Assaults and Violent Acts | 18 | 18 |
| Homicides | 15 | 15 |
| Shooting | 11 | 11 |
| Suicides | 3 | 3 |
| Falls | 16 | 16 |
| From a ladder | 6 | 6 |
| From a roof | 6 | 6 |
| Contact with Objects and Equipment | 13 | 13 |
| Struck by object | 6 | 6 |
| Caught in or compressed by equipment or objects | 5 | 5 |
| Fires and Explosions | 3 | 3 |
| All Events or Exposures | 101 | 100 |
| <p>* Occupational Safety and Health. Based on the 1992 BLS Occupational Injury and Illness Classification Structures</p> <p>** Subcategories may not total major categories. Not all subcategories are shown.</p> <p>Note: Percentages may not add to 100 due to rounding.</p> | | |

SOURCE OF INJURY

The sources (i.e., the objects, substances, exposures, or bodily motions that directly produced the injury) of the 101 fatal injuries are shown in Figure 3. Thirty two percent of all work-related fatalities involved vehicles. The vehicles included 22 highway vehicles, 4 forklift trucks, and 3 tractors. Eighteen percent of the sources were surfaces including 7 floors of buildings and 3 sidewalks.

FIGURE 3
Fatal Occupational Injuries By Source of Injury (OSH* Codes)
New Jersey, 1997 (N=101)



* Occupational Safety and Health. Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

Note: Percentages may not add to 100 due to rounding.

WORKER ACTIVITY

Table 5 indicates the activity of the worker at the time of occurrence of the 101 fatal injuries. The most common activities were vehicular and transportation operations (30%), including driving or operating a vehicle (18%), and constructing, repairing, and cleaning (28%).

TABLE 5
Fatal Occupational Injuries by Worker Activity
New Jersey, 1997 (N=101)

| WORKER ACTIVITY* | NUMBER** | PERCENT |
|--|-----------------|----------------|
| Vehicular and Transportation Operations | 30 | 30 |
| Driving or operating | 18 | 18 |
| Truck | 6 | 6 |
| Automobile | 5 | 5 |
| Industrial vehicle | 3 | 3 |
| Riding in or on a vehicle | 3 | 3 |
| Walking in or near the roadway | 3 | 3 |
| Constructing, repairing, cleaning | 28 | 28 |
| Material Handling Operations | 8 | 8 |
| Protective Service Activities | 6 | 6 |
| Physical Activities | 6 | 6 |
| Using, Operating Tools or Machinery | 5 | 5 |
| Other | 5 | 5 |
| Tending a retail establishment | 3 | 3 |
| Activity Unspecified or Unknown | 13 | 13 |
| All Activities | 101 | 100 |
| <p>*Based on activity codes developed by the U.S. Department of Labor, Bureau of Labor Statistics. ** Subcategories may not total major categories. Not all subcategories are shown.</p> <p>Note: Percentages may not add to 100 due to rounding.</p> | | |

LOCATION

Table 6 shows the location of the 101 workers at the time of their injury. Most of the workers were working at industrial places (44%) or on streets or highways (22%).

TABLE 6
Fatal Occupational Injuries by Location of the Worker
New Jersey, 1997 (N=101)

| WORKER'S LOCATION* | NUMBER*** | PERCENT |
|---|------------------|----------------|
| Industrial Places and Premises | 44 | 44 |
| Construction site | 14 | 14 |
| Factory | 9 | 9 |
| Warehouse | 7 | 7 |
| Railroad | 4 | 4 |
| Street or Highway | 22 | 22 |
| Local road or street | 16 | 16 |
| Limited access roads | 5 | 5 |
| Public Building | 12 | 12 |
| Office building | 6 | 6 |
| Home** | 8 | 8 |
| Home construction | 3 | 3 |
| Other Places | 12 | 12 |
| Parking lot | 6 | 6 |
| Other category or unknown | 6 | 6 |
| All Locations | 101 | 100 |
| <p>* Based on location codes developed by the U.S. Department of Labor, Bureau of Labor Statistics. ** Home construction has been coded under Home and not under Industrial Places and Premises, Construction Sites, since 1996. *** Subcategories may not total major categories. Not all subcategories are shown.</p> | | |
| Note: Percentages may not add to 100 due to rounding | | |

YEARS 1991 - 1997

TABLE 5
Fatal Occupational Injuries by External Cause of Injury (ICD-9 E-Codes)
New Jersey 1991 - 1997

| Number of Fatal Injuries | | | | | | | |
|---|-------------------|-------------------|-------------------|------------|------------|-----------------------|------------|
| ICD-9 E-Codes | 1991 ¹ | 1992 ² | 1993 ³ | 1994 | 1995 | 1996 ⁴ | 1997 |
| Total | 133 | 139 | 145 | 114 | 118 | 100 | 101 |
| Transportation | 34 | 43 | 55 | 33 | 36 | 40 | 28 |
| Motor vehicle traffic accidents | 27 | 37 | 39 | 25 | 32 | 27 | 18 |
| Motor vehicle non-traffic accidents | 3 | 3 | 4 | 4 | 1 | 6 | 5 |
| Water transport accidents | 2 | 1 | 7 | 0 | 1 | 3 | 2 |
| Railway accidents | 2 | 0 | 2 | 0 | 0 | 3 | 1 |
| Air transport accidents | 0 | 2 | 3 | 4 | 2 | 1 | 2 |
| Homicides and Injuries Purposely Inflicted by Others | 31 | 29 | 20 | 22 | 25 | 14⁵ | 15 |
| | | | | | | | |
| Suicides | 5 | 8 | 5 | 2 | 2 | 7 | 3 |
| | | | | | | | |
| Accidental Falls | 16 | 16 | 27 | 13 | 14 | 7 | 16 |
| | | | | | | | |
| Accidents Caused by Electric Current | 14 | 6 | 7 | 8 | 5 | 6 | 9 |
| | | | | | | | |
| Accidents Caused by Machinery | 12 | 17 | 10 | 15 | 9 | 8 | 8 |

¹Original Census 106, revised to 112. An additional 21 fatal injuries were added after close of the year.

²Original Census 114, revised to 138. One additional fatal injury was added after close of the year.

³Original Census 142, revised to 145.

⁴Original Census 99, revised to 100.

⁵Original count of homicides was 13. One additional homicide was added during revision.

Note: Only major categories of causes of injury are shown.